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Food Safety
and Inspection
Service

Meat and Poultry
Hotline Staff

Making the Connection: **AN UPDATE**

USDA's Meat and Poultry Hotline, 1995

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Introduction

What Is the Meat and Poultry Hotline?

The tollfree Meat and Poultry Hotline, part of USDA's Food Safety and Inspection Service (FSIS), provides accurate and up-to-date information to consumers on safe food handling and the prevention of foodborne illness. Callers' questions are answered by a team of home economists, registered dietitians, and food technologists.

The hotline is part of an extensive food safety education program conducted by FSIS as part of its mission to ensure the safety of meat and poultry products from farm to table.

Hotline Marks 10 Years of Service; Changes Noted Over Time

On July 1, 1995, the Meat and Poultry Hotline celebrated its tenth anniversary. The service has operated continuously since 1985, providing direct assistance to callers; offering recorded after-hour messages and, later, a self-guided automated messaging system; and advising the Agency, industry, and the consumer affairs community on food safety and handling issues. In 10 years, the hotline received approximately 850,000 calls.

Over the years, most of the inquiries handled by staff have dealt with the safe storage, handling, and preparation of meat and poultry products in the home. That is true of today's calls as well, but the specific questions have become more varied and complex. In particular, today's hotline callers are more likely to know by name specific illness-causing bacteria. The list of technologies and processes consumers read about, hear about, and subsequently call about has expanded to include irradiation, biotechnology, and advances in meat/poultry inspection. Today's callers encounter new convenience products—including complete holiday dinners for the family—and innovative packaging systems that raise new questions about handling and storage. Kitchen sanitation is receiving close attention; consumers debate issues such as what type of work surface is best or whether special antimicrobial products are needed to clean up. Finally, callers are more interested in nutrition labeling (fat, cholesterol, health claims).

This report provides further information about the number and type of calls received by the Meat and Poultry Hotline. A summary of the hotline's accomplishments and activities from January 1-December 31, 1995, is presented.

Educational Campaigns in 1995

In addition to handling a large number of incoming consumer and media calls, the hotline actively distributed information to the media and other "multiplier" groups. The staff researched and wrote 20 background papers or news feature stories on a variety of topics. These were mailed quarterly in packets to 1,700 magazine and newspaper food editors across the country and transmitted electronically to other professionals.

Three major initiatives in 1995 were based on needs identified and data collected by the Meat and Poultry Hotline. Campaigns were built around (1) food thermometer use, (2) safe handling of take-out foods, and (3) new turkey roasting timetables. For each campaign, a new consumer-oriented brochure was developed and distributed.

Thermometer Campaign

In 1994, the hotline directed a survey of food thermometer use among its callers and grocery shoppers in New York and Colorado. Since consumers are generally advised to ensure the safety of meat and poultry by cooking it until a specified internal temperature is reached, an understanding of how consumers use thermometers is important. The hotline survey showed an almost-even split between thermometer users (49 percent) and non-users (51 percent), but only one-fifth of the "users" stated that they use their thermometer for all meats.

Considering all survey data and consumer comments, the hotline developed a brochure called "Use a Meat Thermometer - And Take the Guesswork Out of Cooking." The brochure and other campaign materials stressed the advantages of thermometer use. For example, checking internal temperature is the only reliable way to measure safety and doneness of meats, especially large cuts; visual assessment is not always accurate.

The brochure was distributed to members of trade associations—Food Marketing Institute, National Grocers Association, and Association of Home Appliance Manufacturers—and to members of the American Association of Family and Consumer Sciences at its annual meeting. The information was also distributed to food and health editors of newspapers and magazines, radio news directors, Cooperative Extension agents, and state departments of agriculture. Retailers and grocers were urged to cross-merchandise thermometers at the meat counter.

Based on the thermometer brochure, the U.S. Department of Agriculture produced a video news release available via satellite to any television station. A column by NAPS (North American Precis Syndicate) resulted in 192 newspaper articles in 22 states; the papers' combined readership was estimated at 19.7 million.

All materials produced by the hotline since this campaign have incorporated the message that consumers should monitor final internal temperatures using a thermometer.

"Take-Out Foods: Handle With Care"

In 1994 and 1995, thousands of copies of a brochure describing safe handling of ready-prepared turkey dinners, popular around holidays, were distributed by the hotline through the major grocery trade associations. However, the hotline noted that calls about take-out meals and prepared foods were becoming more common, and not just around Thanksgiving and

Timetables for Turkey Roasting Reviewed with Food Safety in Mind

Christmas. Therefore, a new brochure was developed with handling advice applicable to all types of take-out or "take-home" foods. Like its predecessor, the new take-out foods brochure was widely distributed to industry, government, and educators.

The brochure was written in cooperation with the U.S. Department of Health and Human Services Food and Drug Administration and the Food Marketing Institute.

The hotline updated its safety information with respect to turkey roasting after a University of Georgia study yielded new information about cooking times, safe endpoint temperatures, and proper placement of temperature indicators. The study was sponsored by the National Turkey Federation; FSIS microbiologists reviewed the study and provided technical assistance. The research was prompted by consumer calls to the Meat and Poultry Hotline and also to the turkey industry which suggested that turkeys were cooking faster than most roasting charts indicated. It is believed that newer breeds of turkey, which reach market weight sooner than birds did several years ago, take less time to cook.

Data from the university study showed that birds roasted according to a prescribed method did indeed reach a safe internal temperature in less time than expected. These findings were of great interest to consumers and the media: With a better idea of when a meal may be served, consumers may cook turkey long enough to ensure safety but not so long as to produce a tough, dry bird.

To introduce the new information to consumers, a camera-ready brochure "Take the Guesswork Out of Roasting a Turkey" was distributed widely and through trade associations such as the National Turkey Federation. FSIS also released news features about the study. By Thanksgiving, several processors had updated their package directions using the new times. An FSIS video news release for the holidays demonstrated the cooking instructions identified during the study as critical to safety, and stressed that since many factors influence cooking times, a meat thermometer should be used.

Caller Concerns in 1995

Callers' concerns ranged from food handling to causes and prevention of foodborne illness, from labeling and nutrition to the use of technology in food processing. Following are some examples of concerns noted frequently in 1995.

E. coli O157:H7

Several hundred callers requested information about *E. coli* O157:H7, the pathogenic strain of *E. coli* that caused an outbreak of illness in the northwest in 1993.

Illness from the bacterium has been associated with undercooked ground beef and a number of other foods, but it was for the first time associated with dry-cured, ready-to-eat salami and sausages in December 1994. In November and December of that year, there were 11 reported cases in the state of Washington and three in California of illness in people who had eaten dry-cured salami and sausages from a California plant. One of

those cases was identified through a consumer call to the Meat and Poultry Hotline; additional calls followed into early 1995.

The manufacturer voluntarily recalled the sausage products and halted production until its processes were reevaluated. FSIS met with the Nation's 250 manufacturers of dry sausage and developed a protocol to follow to ensure that the bacterium is destroyed during processing. Manufacturers are required to follow this protocol or heat-treat their products. These products are now included in the FSIS microbiological sampling program for *E. coli* O157:H7.

However, most callers continued to associate *E. coli* O157:H7 with ground beef. To make future communications as meaningful as possible, FSIS used focus groups affiliated with supermarket chains to determine how consumers would describe or identify a safely cooked hamburger.

Salmonella enteritidis and Eggs

Eggs are consistently among the top five products asked about by Meat and Poultry Hotline callers. In 1995, the hotline continued its efforts to educate consumers on safe egg handling, particularly since FSIS became responsible for the inspection of egg products on May 28, when elements of various USDA agencies were combined into one food safety agency. (The term "egg products" refers to eggs out of the shell (liquid, frozen, or dried) and includes whole eggs, whites, yolks and various blends.) Consumers had many questions about handling and storing egg products and shell eggs.

Because *Salmonella enteritidis* bacteria may be present in eggs, consumers questioned the safety of recipes in which eggs remain raw or lightly cooked. Those in at-risk groups were most concerned. On the other hand, some callers, because they have in the past consumed raw eggs routinely, expressed doubts that raw or undercooked eggs could cause illness.

Related to *Salmonella* worries were clear concerns about how eggs should be stored and how long they could be kept. In fact, there were more product dating questions about eggs than any other food.

Egg storage and handling questions peaked around Easter when callers were planning egg hunts and other festivities. A video news release was used to get egg safety information to television viewers. Flyers with suggested egg safety questions, offering interviews with Meat and Poultry Hotline staff, were sent to radio news directors across the country. Prior to Easter, 65 radio interviews were completed.

Animal Health

Several outbreaks of disease among food animal populations prompted calls about the safety of meat and poultry. For example, consumers were alarmed by reports of spiking mortality (an increase in deaths of young birds) among turkey flocks in the Southeastern United States. They worried that diseased birds would reach the marketplace, or that supplies would dwindle, making Thanksgiving turkeys scarce or expensive. These fears were unfounded.

Late in the year, news reports from Great Britain of its continuing epidemic of bovine spongiform encephalopathy (BSE), sometimes known as "mad cow disease," prompted several calls about the safety of beef. (The United States does not import beef from Great Britain; there is no evidence to date of a domestic BSE problem.) This is anticipated to be one of the significant caller concerns in 1996.

Turkey Roasting

In 1995, hotline staff handled more than 8,000 questions about turkey. The new roasting times, based on the University of Georgia study (see page 3), attracted the attention of food writers, Extension agents, and many of the consumers who called the hotline. Consumers welcomed and were eager to use the new information. Like all timetables, these pertain to a specified method of preparation—in this case, open roasting in a shallow pan with limited aluminum foil tenting. Therefore, the new guidelines generated a great deal of discussion of the safety of alternative methods, recommended time/temperature combinations, and influences on cooking time.

Ground Beef

In April, the Food Safety Consortium released results of research underscoring the need to check carefully for doneness in cooked ground beef. Research demonstrated considerable variation both between and within beef patty formulations in endpoint temperature and color even when controlled cooking procedures were followed. Color of cooked ground *meat* was found to be less reliable than either a thermometer/temperature probe reading or the color of the meat *juices* as an indicator of internal temperature. Simply put, some ground beef products, particularly with certain added ingredients, may stay pink even when cooked sufficiently. And, some meat turns brown and looks “done” before it is cooked to a high enough temperature to kill pathogens. In the studies, meat that browned prematurely was likely to have been stored at the wrong temperature, kept too long before being used, or exposed too much to air.

This study has significant implications for food safety education. These findings complicate the process of devising simple, memorable advice statements for consumers. As noted, focus group testing will assist FSIS in crafting its safety messages related to ground beef.

The importance of cooking ground beef thoroughly and using a thermometer to measure internal temperature was emphasized whenever consumers and food safety educators called the hotline to ask about *E. coli* and hamburgers.

Power Outages and Floods

Consumers often call the Meat and Poultry Hotline for help in handling foods after a power outage or flood. In 1995, staff handled more than 1,700 such calls; in addition, this was one of the most popular topics among the recorded messages. Since these calls most often are weather-related, they were numerous in the summer months.

Tropical storms continued through October, bringing in calls to the hotline from the states hardest hit. Working through FSIS’ regional offices, the hotline furnished basic advice to radio stations and had them remind listeners of the Meat and Poultry Hotline’s availability. The hotline supervisor was also interviewed on the CNN radio network.

Storms packing high winds struck the Pacific Northwest in December. More than 300 power outage inquiries were handled that month by staff, most of them from Oregon, California, or Washington.

New Products—Enhancing or Jeopardizing Food Safety?

Hotline callers had questions about the safety of products designed to speed thawing, cook with solar energy, provide instant temperature checks, or keep foods either warm or cool. The hotline had to help consumers decide if use of these products was consistent with safe food handling guidelines.

The product that captured the most attention was the anodized aluminum thawing tray. The heat conducting properties of the material are such that the natural process of thawing can be accelerated. Approximately 100 calls about this kitchen tool were recorded.

Ratites

Ratites are a family of large, flightless birds. On November 1, 1995, FSIS announced it would provide voluntary fee-for-service inspection on an experimental basis to plants that slaughter and process products from ratites, including ostriches, emus, and rheas. The action came in response to a March 1995 petition from the Emu Association.

These ratite species and other exotic and game animals are not included under mandatory meat and poultry inspection laws. However, under the Agricultural Marketing Act, USDA can provide voluntary fee-for-service inspection for plants that want to pay for the service.

An increase in hotline calls about ostrich and emu reflects the growth of this industry. FSIS has inspected ostriches through the experimental program since 1994 and today performs voluntary inspection at approximately 30 ostrich plants. The agency expects to implement voluntary inspection of other ratite species after it completes appropriate training and inspection guidelines.

In 1995, approximately 60 callers asked about the inspection, nutrition, and safe preparation of ratite products. Questions came from consumers as well as those interested in the business of farm-raising these birds.

For more information about the kinds of questions received by the Meat and Poultry Hotline, see Subject of Inquiry (page 10).

Summary of Outreach Efforts

The Meat and Poultry Hotline tracks call data in order to establish trends, detect emerging issues, and identify areas in which consumer education is needed. In 1995, information was conveyed to the public in many ways, through:

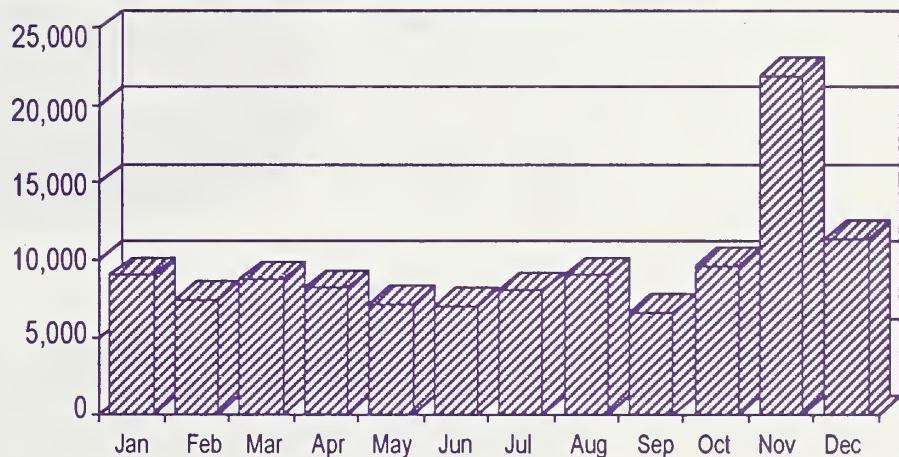
- radio interview campaigns focusing on egg handling, summer food safety, and safe turkey preparation;
- fact sheets for radio news directors to have on file in the event of (1) a lengthy power outage, or (2) an *E. coli* O157:H7 outbreak;
- 11 print news features, released over the news wires and through USDA's press service;
- four video news releases transmitted via satellite (ground beef safety, Easter egg handling, summer food safety, turkey roasting);
- on-camera interviews for television;
- the Internet, by having other organizations post information from the hotline and by helping to develop FSIS' own home page;
- consumer-friendly brochures distributed through trade associations and other organizations;
- information kits for food and health editors and educators;
- campaigns aimed at placing food safety information in mailings that reach individual households, such as utility bill inserts and congressional newsletters;
- focus group testing of messages;

- attendance and participation at professional meetings and conventions; and
- outreach to cookbook authors and editors, encouraging more of them to use the hotline number in their publications.

Use of these various channels helps FSIS disseminate important food safety information and remind consumers of the continued presence of the hotline, a source for additional and up-to-date information.

Facts and Figures

Figure 1: Total Incoming Calls Per Months, 1995



Call Volume. The year 1995 was the fourth consecutive year in which the Meat and Poultry Hotline received more than 100,000 calls—114,146 to be exact. Even though calls are down somewhat from the peak years of 1992-93, the annual tally is expected to remain comfortably above 100,000 for the foreseeable future with a general upward trend. In fact, since the hotline became a tollfree service in 1985, more than 900,000 calls have been recorded; the millionth hotline call is expected in late 1996.

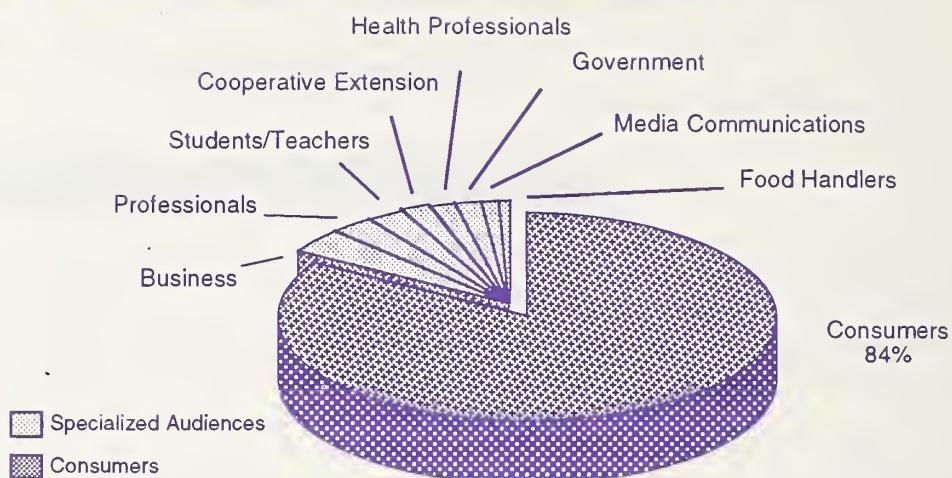
Figure 1 shows the distribution of 1995's calls by month. As usual, November and December—with respectively 19 and 10 percent of the year's calls—were the busiest months.

All callers did not use the service during business hours when the lines were staffed; therefore, the number of consumers who spoke to a food safety specialist and had their concerns documented is less than the total number of calls. On average, food safety specialists spoke with 170 callers each business day; that figure rose to over 550 at times. The remaining statistics in this report are based on records of 41,387 calls consisting of 43,567 inquiries. (One "call" may include many separate "inquiries.")

Hotline Callers. Primarily, the Meat and Poultry Hotline assisted individual consumers. However, staff also served thousands of business and professional clients: educators, communicators, meat purveyors, government officials, foodservice workers, health and human service

professionals (registered dietitians, physicians, home economists, etc.). Sixteen percent of callers identified themselves as part of a specialized audience (see figure 2).

Figure 2: Meat and Poultry Hotline Callers, 1995



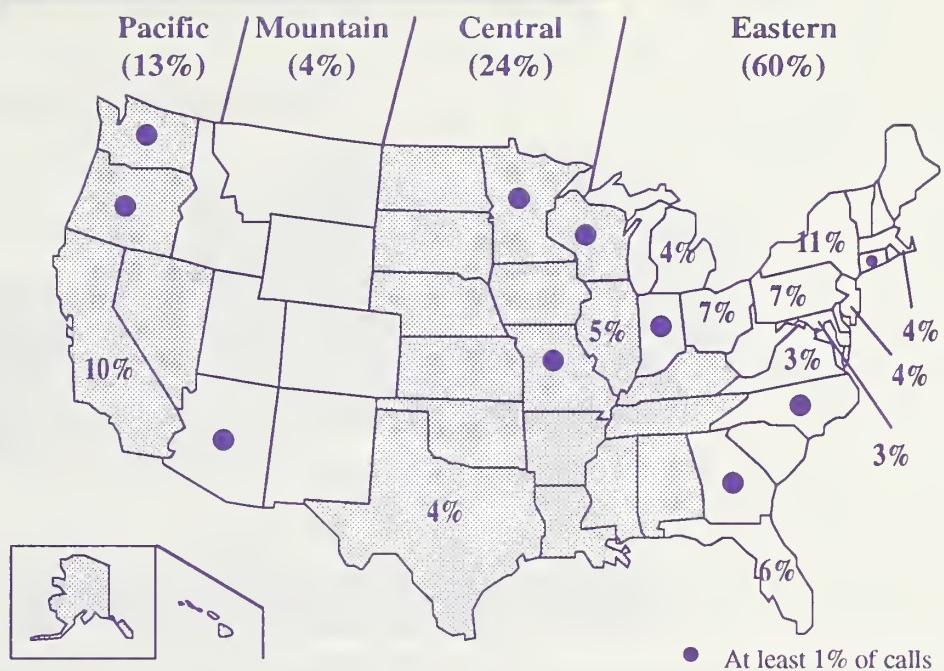
Media callers who contacted the hotline manager directly were not calls from radio stations, many generated by the flyers sent to their news directors during peak times when listeners were especially interested in food safety and handling. Another 44 calls came from television stations. Newspapers and magazines accounted for 333 contacts, with the remainder from newsletters (62) and 155 various other organizations.

Callers' Home States. As a centralized data collection point, the Meat and Poultry Hotline is able to sample opinion and compare questions from all regions of the country. Although calls come from all 50 states, the District of Columbia, U.S. territories, and foreign countries, the distribution of calls varies by region. In 1995, the Eastern United States (these regions being roughly equivalent to time zones) produced 59 percent of calls; the Central region, 24 percent; the Mountain region, 3 percent; and the Pacific region, 13 percent.

Figure 3 shows the top call-producing states. Two-thirds of the calls originated in one of 12 geographically scattered states. They are, in descending order: New York, California, Pennsylvania, Ohio, Florida, Illinois, Texas, Michigan, Massachusetts, New Jersey, Maryland and Virginia.

In 1995, the hotline received calls from eight foreign countries, led by Canada.

Figure 3: Call Distribution by State, 1995

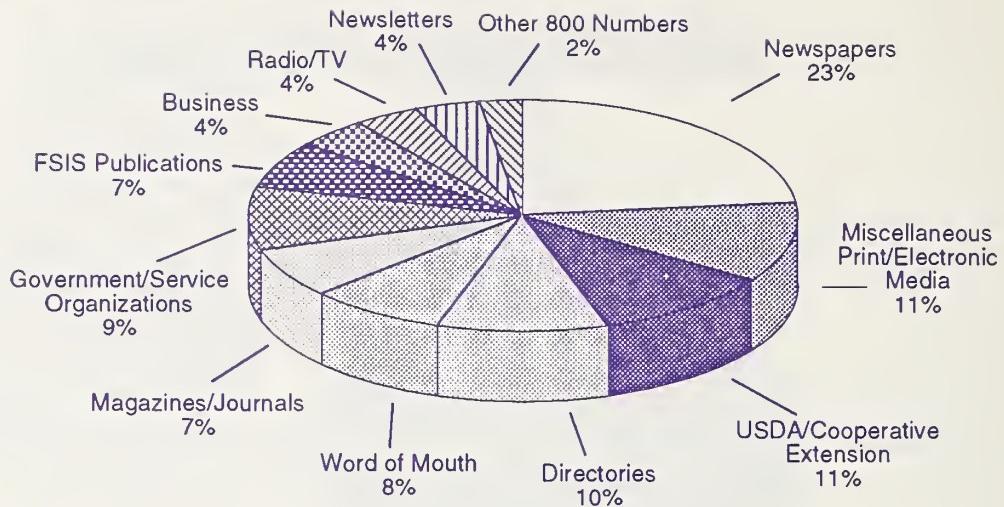


How Callers Learned of the Hotline. Thirty-one percent of callers reported having called the hotline on a previous occasion. Those using the service for the first time were asked how they obtained the telephone number. (See figure 4.) Predominantly, consumers cited print media as their source of information. The specific sources mentioned most often were (1) newspapers (23 percent of first-time callers), (2) miscellaneous publications—cookbooks in particular, and some use of computer networks (11 percent); and (3) USDA agencies and the Cooperative Extension System (11 percent).

The most frequently reported source of the Meat and Poultry Hotline number was the *Better Homes and Gardens Cookbook*, which generated more than 2,000 calls. More than 1,000 callers used the AT&T directory of 800 numbers. At least 100 calls were traced back to each of the following:

<i>AARP Bulletin</i>	HMOs
appliance use and care manuals	<i>Houston Chronicle</i>
<i>Atlanta Journal & Constitution</i>	<i>Los Angeles Times</i>
<i>Better Homes and Gardens</i> magazine	<i>New York Times</i>
<i>Betty Crocker Cookbook</i>	<i>Nutrition Action</i> letter
<i>Boston Globe</i>	<i>Orlando Sentinel</i>
<i>Chicago Tribune</i>	<i>Parade</i> newspaper supplement
<i>Cleveland Plain Dealer</i>	<i>Parents</i> magazine
<i>Detroit News and Free Press</i>	<i>Philadelphia Inquirer</i>
Discovery Channel	<i>Portland Oregonian</i>
<i>Family Circle</i> magazine	<i>St. Louis Post Dispatch</i>
Food and Drug Administration	<i>Washington Post</i>
General Electric hotline	<i>Woman's Day</i> magazine

Figure 4: How First-Time Callers Learned of the Hotline, 1995



Types of Inquiries. Each inquiry, regardless of its subject, is designated as either an information request or a complaint. In 1995, less than 2 percent of customer contacts were identified as complaints. Complaints may involve food products, government policies, or industry practices; complaints are further designated as either formal or informal, depending on whether further agency action is dictated.

Informal complaints, those of a general nature referring to some condition in the marketplace, outnumbered formal agency-investigated complaints by more than 2 to 1 (548 to 221). Allegations of foreign objects were most frequent in the formal complaint category and alleged illnesses/injuries ranked second. Complaints about practices in a store or restaurant were most common among informal complaints.

Subject of Inquiry. Most hotline inquiries are about safe storage, handling, and preparation of meat and poultry products, as figures 5 and 6 illustrate. Storage, handling and cooking/preparation questions, along with questions about foodborne illness and publication requests, comprised 75 percent of all inquiries in 1995.

An additional 11 percent of inquiries dealt with food marketing and inspection issues. Callers asked safety-related food buying questions; packaging, cookware and equipment questions; and questions on various regulatory issues (product formulation, recalls, meat and poultry inspection, agricultural chemical use, food biotechnology, food additives, etc.).

Six percent of inquiries were grouped under the heading of questionable products and practices: products in suspect or off condition; practices in stores, restaurants, and foodservice establishments.

Four percent of inquiries pertained to labeling, product dating, or basic nutrition.

The remaining 4 percent involved other issues and included referrals for questions outside the hotline mission area.

The top 15 subjects of inquiry for the year are shown in figure 6.

Figure 5: Hotline Inquiries by Subject, 1995

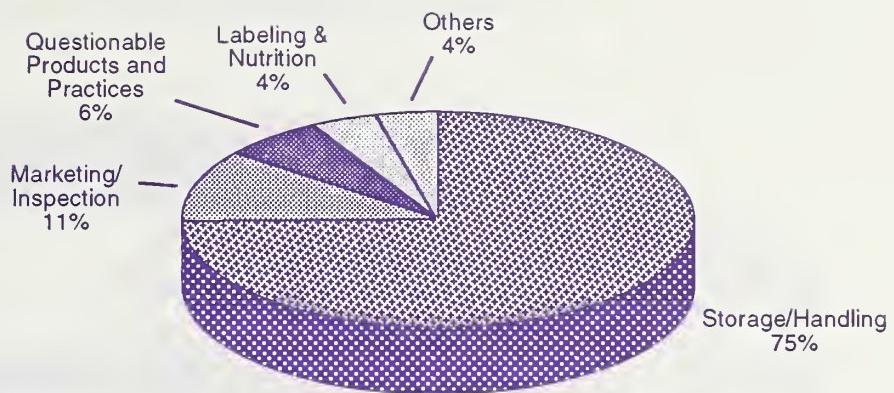
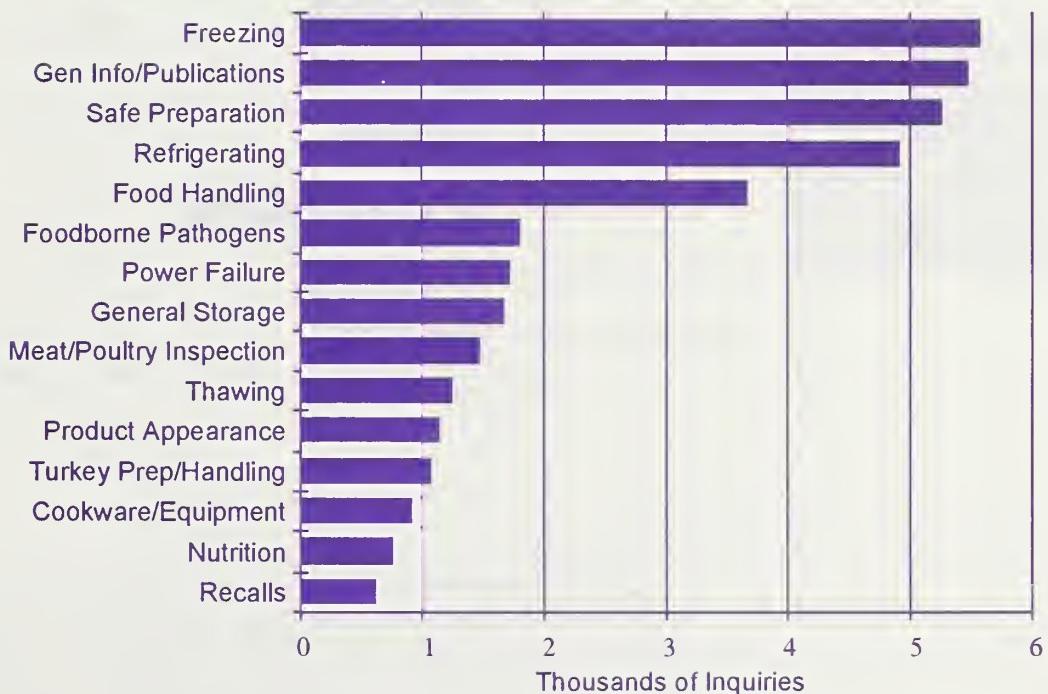


Figure 6: Common Subjects of Inquiry, 1995



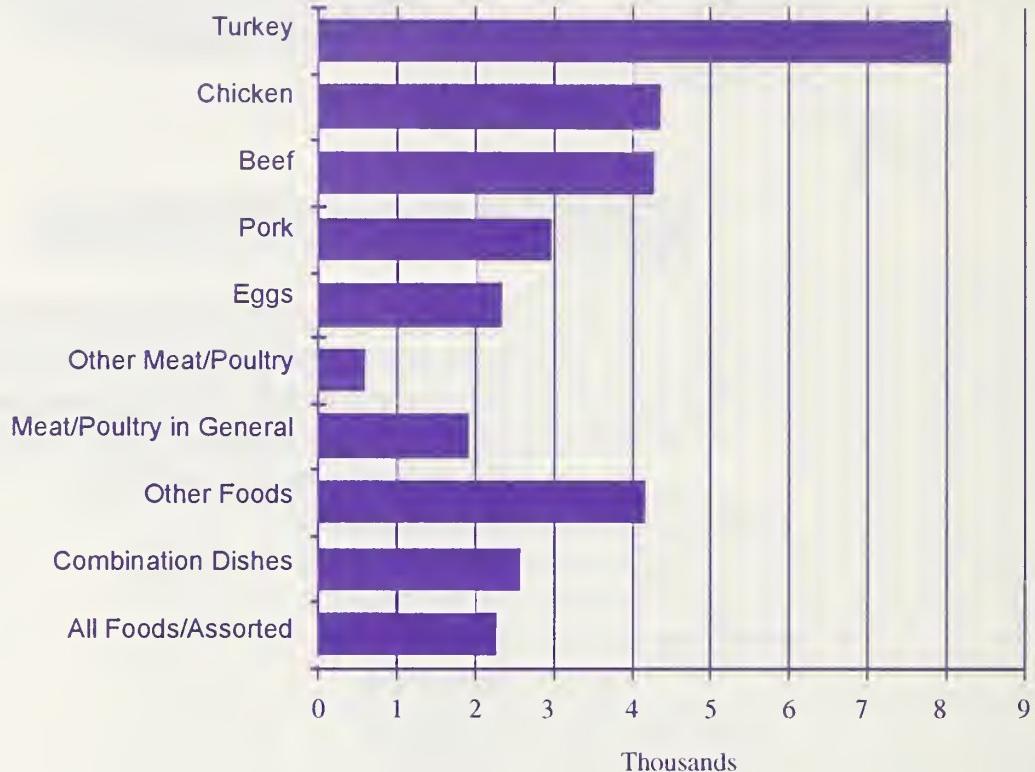
Inquiries by Food Group. Figure 7 looks at calls specifically associated with a food or class of product. Seventy-seven percent of inquiries were product-specific.

Questions varied seasonally in terms of product. For example, turkey calls prevailed in November and December; pork and egg questions increased in the spring; chicken and beef calls predominated in the summer months when outdoor cooking is popular.

Five product categories—turkey, chicken, beef, pork, and eggs—figure in 66 percent of all product-specific inquiries. Because the principles of safe

handling are the same for all foods, and because other foods are prepared alongside meat and poultry dishes, the hotline does address questions on products other than meat and poultry. Questions about other products are referred to the responsible regulatory agency when necessary.

Figure 7: Meat and Poultry Hotline Inquiries by Food Group, 1995

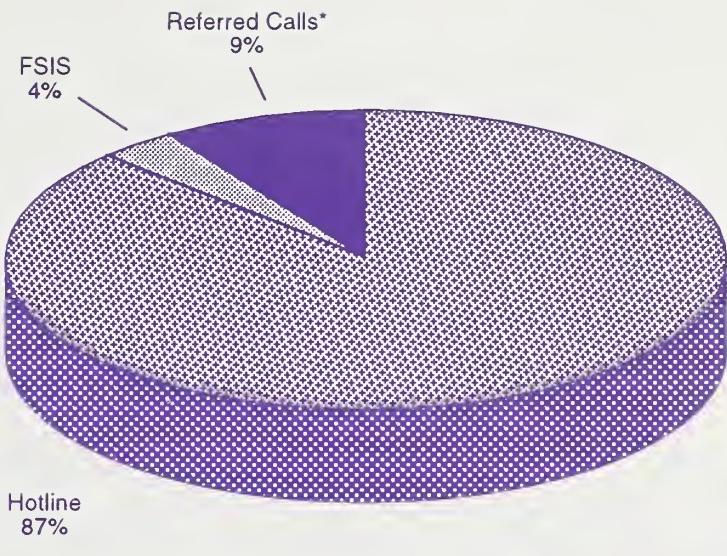


Call Management. The hotline relies on experts within and outside FSIS to provide the best, most current information available to consumers. This enables the staff to resolve most inquiries (87 percent) on the first contact. Approximately 3 percent are referred to another arm of FSIS, leaving approximately 9 percent of inquiries referred to other agencies. Usually, inquiries are referred to one of four places: the U.S. Food and Drug Administration (which regulates food products other than meat and poultry); state or local health departments (responsible for grocery stores and restaurants); industry trade associations; or Cooperative Extension (a grass-roots educational program co-sponsored by USDA and each state's land grant university). See figure 8.



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Figure 8: Call Handling, 1995

***Breakdown of
Referred Calls**

FDA	2%
Health Dept.	1%
Extension	1%
Trade Assoc.	1%
Other	4%

Operations

In the past year, hotline staff continued to assume numerous responsibilities in addition to answering consumer calls. To support the main mission of the hotline, each staff member served as subject-matter expert on specific topics. This entailed conducting research, attending professional meetings and seminars, establishing relationships with experts across the country, and developing materials for consumers and reference materials for in-house use. As a result of these efforts, hotline staff were often asked to consult with other offices, agencies, and organizations on consumer education projects.

The hotline also developed its own training materials and scheduled in-service workshops as necessary. Staff educated and informed constituents in addition to hotline callers by giving speeches and presentations at conventions, professional meetings, and in a variety of other settings.

The Meat and Poultry Hotline staff currently consists of the acting Director, a Public Affairs Specialist, a Management Analyst, a Supervisory Technical Information Specialist, six part-time and four temporary-

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intermittent Technical Information Specialists, and a Secretary. The specialists have worked as nutrition and home economics teachers, public health and community nutrition experts, consumer advisors, microwave cooking and appliance specialists, food journalists, and registered dietitians in nursing homes and hospitals.

For More Information

USDA's Meat and Poultry Hotline may be reached by calling 1-800-535-4555 (202-720-3333 in the Washington, D.C., area). Callers may speak with a food safety specialist weekdays from 10:00 a.m. to 4:00 p.m., Eastern Time. Recorded messages are available at all times.

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To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C., 20250, or call 1-800-245-6340 (voice) or (202) 720-1127 (TDD).

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